

NOTE ON THE USE OF SKIN FROM PUPPIES IN SKIN-GRAFTING.

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A BOY, æt 14 years, having in April last sustained severe and extensive burns, under treatment had accomplished the healing of them all except certain granulating regions beneath the chin and lower jaw, and the right arm from elbow to fingers. Upon these surfaces skin grafts were finally placed. For the neck grafts were obtained from the arms of the father and brother of the patient, but for the arm grafts were taken from two young puppies of the Mexican hairless breed, whose soft white hairless skin seemed to offer itself for the purpose with good prospect of successful result. The result was all that could be desired. The puppy-grafts proved to be superior to the human grafts; a greater proportion of them "took," and their subsequent rate of growth was much faster.

[NOTE BY THE EDITOR.—The above use of puppy-grafts was original with the reporter of the above case, and when he communicated it he was unaware that any similar case had been recorded. In the *Lancet*, March 15, 1890, however, is reported a similar case by Mr. Alex. Milro, of Edinburg. The case is as follows:

A boy, æt. 10 years, presented an extensive ulcer on the left leg, resulting from a burn. The entire surface was covered with healthy granulations, but there was not the slightest attempt at cicatrization. It being impracticable to obtain sufficient human skin to cover the ulcers, a young black and white greyhound, seven days old, was killed with chloroform, and, the whole of his anterior abdominal wall and flanks having been shaved, the flap of the skin thus marked out was dissected up, taking the entire thickness, leaving the subcutaneous fat. The skin was cut into strips measuring six inches long by half an inch broad, which were firmly pressed into the previously cleaned ulcer in the long axis of the limb. Smaller grafts, about an inch square, were used to fill in spaces left between the larger ones. A considerable area

over the inner side of the knee still remained bare, and, to cover it, the skin from the pup's tail was dissected up, unshaven. Over these grafts an antiseptic dressing was applied.

On the first dressing, three days later, all the grafts but one small one had adhered. Some of the long strips sloughed later, but the smaller ones all did well. It was observed that the graft taken from the tail which was not shaved behaved exactly as the sponge does by promoting granulation. The hairs around the margins seemed to stimulate the granulations which grew on to the surface of the graft, and then spreading, completely swamped it. A few small grafts of human skin from a small boy were scattered here and there, two weeks later, to fill up gaps still left, and all did well. One or two spots still remaining a couple of days later were covered with pieces of the skin of an old frog, but these failed to unite.

Cicatrization was complete in six weeks after the first application of grafts. Seven months later there was absolutely no cicatricial contraction except where the tail skin was planted, and there it was very slight. The color of the skin was uniform and very similar to that of the normal skin. There was no evidence of any development of hair or of cutaneous secretions. The ordinary sensation was as good as in the other leg, and the temperature of both was the same.

The author believes the favorable outcome of the case to be mainly due to the age of the animal selected to furnish the grafts. In the first few days of extra-uterine life the creature grows very rapidly, and by grafting a large area of young tissue with a potentially great developmental power, the ulcerated area is quickly covered in and the contraction prevented which invariably results after extensive burns when they are allowed to heal without artificial aid.]